

AMENDMENTS TO THE CLAIMS:

1. (Withdrawn) A method of transmitting data comprising the steps of: sending a command from a platform command processor to a central bus interface unit; providing power over a power line from a central power supply to a payload unit; and interrupting the power to the payload unit to provide the payload unit with the command from the platform command processor.

2. (Withdrawn) A method of claim 1 further comprising sending telemetry from the payload unit to the platform command processor.

3. (Withdrawn) A method of claim 2 wherein the telemetry is sent over the power line.

4. (Withdrawn) A method of claim 1 further comprising the steps of: providing power over the power line from the central power supply to a second payload unit; and interrupting the power to the second payload unit to provide the second payload unit with a second command from the platform command processor.

5. (Withdrawn) A method of communicating with a payload unit comprising the steps of: providing power to the payload unit over a wire; and providing telemetry from the payload unit over the wire to a spacecraft platform's [telemetry] telemetry and command processor.

6. (Withdrawn) A method of claim 5 further comprising the steps of providing command data from the spacecraft platform's command processor to the payload unit by interrupting power to the payload unit.

7. (Withdrawn) A system comprising: a spacecraft platform; a central bus interface

unit coupled to the platform; a payload unit coupled to the central bus interface unit; and a power supply line for powering the payload unit; wherein the spacecraft platform provides a command to the central bus interface unit; wherein the central bus interface unit sends the command to the payload unit over the power supply line.

8. (Withdrawn) A system of claim 7 wherein telemetry data is sent from the payload unit to the central bus interface unit.

9. (Withdrawn) A system of claim 8 wherein the telemetry data is sent on the power supply line.

10. (Withdrawn) A system of claim 7 wherein the central bus interface unit interrupts the power on the power supply line to send the payload unit the command received by the central bus interface unit.

11. (Currently Amended) A system for communication on a spacecraft comprising: a spacecraft platform telemetry and command processor; a spacecraft bus interface coupled to a spacecraft platform; a central bus interface unit coupled to the spacecraft bus interface; and a plurality of payload units coupled to the central bus interface unit; wherein the central bus interface unit supplies power to the plurality of payload units through a plurality of combined power and communication wires, and each payload unit receives power from a single power supply through a single wire and commands are sent by interrupting the single power supply for periods of time; and wherein the central bus interface unit sends a command received from the spacecraft platform to one of the plurality of payload units through one of the combined power and communication wires, wherein the lengths of the periods of time that the single power supply is interrupted function as the actual communication of the system with each different length of time interruption having a different meaning.

12. (Previously Presented) A system of claim 11 wherein the plurality of payload units further comprise a decoder for processing the command sent from the central bus interface unit.

13. (Previously Presented) A system of claim 11 further comprising a switch for momentarily interrupting the power on the combined power and communication wire.

14. (Previously Presented) A system of claim 13 wherein the command is sent by the central bus interface unit by opening and closing the switch.

15. (Withdrawn) A system for connecting a spacecraft bus to a payload unit comprising: an interface for directing a command from a spacecraft platform command processor; a central bus interface unit coupled to the interface, the central bus interface unit comprising: a command decoder; and a register coupled to the command decoder for operating a switch; wherein the switch interrupts an output voltage, the interrupts corresponding to the command from the spacecraft platform command processor; a payload interface coupled to the output voltage, the payload interface comprising: a decoder coupled to the output voltage for decoding the interruption of the output voltage; and a power voltage for powering the payload unit during the interruption of the output voltage.

16. (Withdrawn) A system of claim 15 further comprising a modulator at the end user interface for sending telemetry to the central bus interface unit.

17. (Withdrawn) A system of claim 16 further comprising a demodulator at the central bus interface unit for receiving the telemetry.

18. (Withdrawn) A system of claim 17 wherein the telemetry is sent over the same line as the output voltage.

19. (Withdrawn) A system of claim 17 wherein the telemetry is sent using a spread spectrum signal.

20. (Previously Presented) A system of claim 11 wherein telemetry data is sent from the payload units to the central bus interface unit.

21. (Previously Presented) A system of claim 20 wherein the telemetry data is sent on the power wires.

22. (Previously Presented) A system of claim 11 wherein the central bus interface unit interrupts the power on the power wires to send the payload units the command received by the central bus interface unit.

23. (Previously Presented) A system of claim 11 further comprising a modulator at an end user interface for sending telemetry to the central bus interface unit.

24. (Previously Presented) A system of claim 23 further comprising a demodulator at the central bus interface unit for receiving the telemetry.

25. (Previously Presented) A system of claim 24 wherein the telemetry is sent over the same wire as output voltage.

26. (Previously Presented) A system of claim 24 wherein the telemetry is sent using a spread spectrum signal.